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Ethics Essay

In this course CPRE/EE 394, we have spent a lot of time discussing ethics and responsibility, more specifically we have been analyzing the IEEE code of ethics. Having/following a code of ethics is essential for professionals who wish to create safe and clean products/technologies for consumers to purchase and use everyday around the world. These ethics are significant because without them, there wouldn't be anything to keep engineers accountable to the societies and communities they serve with their work. In society we have seen many examples of companies passing over these ethics, in almost every situation, the outcome results in damage to the environment or avoidable damage to the consumers. As developing engineers, it is up to us to include these topics of ethics in our thoughts and discussions moving forward.

In my personal experience with ethics, I always put the safety of the user/consumer first. At my internship, it always begins with a question of "what would be the expertise level of the person operating the machine, and would it be safe to use?", then the concept or design is moved into a larger discussion for more opinions and feedback from other engineers. After this, a more detailed analysis takes place, questions are brought up about cost, feasibility and timing. The important note is that without the design being safe, it does not move forward, safety should always be a priority above all else. In this course we also discussed ethical issues surrounding

not only safety for humans, but also safety for the environment. Along with these, we discussed how failure to show integrity, honesty, fidelity, charity, responsibility and self-discipline often leads to this result.

A great example of this is one of our case studies from the semester, the Ford Pinto. The Ford Pinto was an automobile made in the late 1960s by Ford Motors. In the design process, lots of corners were cut to keep the cost of the vehicle very low. One of these corners was the fuel tank being far too close to the very weakly supported rear bumper. Despite Ford knowing that the car did not pass safety tests and standards they pushed the vehicle to production and skipped the extra \$11 per vehicle cost to fix this issue, that extra \$11 could have helped prevent any of the 180 burn deaths that occurred due to this problem. In this case I discussed with the class about how this decision was extremely unethical and avoided three important ethical virtues we discussed in class, integrity, charity and responsibility. They lost their integrity when they decided to put their consumers at an increased risk, they showed a lack of charity when they decided that it would be cheaper to pay out for the deaths of victims in lawsuits than it would be to fix the issue and they willingly decided to be irresponsible by acting against the best interest of their consumers. The appropriate course of action would have been to adjust the rear protection of the vehicle and pay the extra \$11 per vehicle or not make the vehicle at all, they would have known this if they were consulting and following part 9 of the IEEE Code of Ethics. From our other 3 virtues I believe that you could also make the point that Ford was also being dishonest when making the Pinto by moving forward after failing their safety tests. However, I feel that fidelity and self-discipline do not apply to this situation.

When this case study was discussed with class, it was nice to see that my partners agreed with my conclusion. We all came to a consensus on the fact that Ford needed to do something

other than ignore the issue, whether this was to pay the extra money or something else. My classmates also pointed out that many engineers in this situation may have struggled with their concerns being shut down by their bosses, which would make the whole situation even worse.

In conclusion, we can see that ethics are an important part of every engineer's career. With our creations a lot of damage can be done if they're ignored, even if it's not intentional. This course has shown me many great philosophies/virtues and how to apply them to my career to create a better world for not only myself, but also society as a whole using the IEEE code of ethics to keep myself accountable.